

ABSTRACT

~~A~~ The invention provides an illumination system according to the present invention is
~~a illumination system 100 comprising:~~ that can include a first reflecting ~~mirror 20a~~ mirror
arranged on the ~~a~~ rear side of a light-emitting ~~portion 11~~ portion of the illumination
~~system 100~~ system including an arc tube ~~10~~ tube, and a second reflecting ~~mirror 30a~~ mirror
arranged on the front side of the light-emitting ~~portion 11~~ portion of an optical system. The
system is arranged so that the ~~diameter D1~~ diameter on a reflecting ~~surface 50~~ surface of the
first reflecting ~~mirror 20a~~ mirror corresponding to the available marginal light emitted from
the light-emitting ~~portion 11~~ portion to the rear side of the illumination system is larger than
the ~~diameter d1~~ diameter of the outer surface of the second reflecting ~~mirror 30a~~ mirror and
the ~~diameter d1~~ diameter of the outer surface of the second reflecting ~~mirror 30a~~ mirror is set
to a size within the ~~light L1 and L2~~ light as the available marginal light reflected by the first
reflecting ~~mirror 20a~~ mirror, a reflecting ~~surface 60~~ surface of the second reflecting
~~mirror 30a~~ mirror surrounds about half of the front side of the light-emitting ~~portion 11~~ portion,
portion, and the light emitted from the center of the light-emitting ~~portion 11~~ portion and
incident on the second reflecting ~~mirror 30a~~ mirror agrees with the normal of the second
reflecting ~~mirror 30a~~ mirror.